NATIONAL INSTITUTE FOR HEALTH AND CLINICAL EXCELLENCE

PUBLIC HEALTH INTERVENTION DRAFT GUIDANCE

Issue date: October 2006

One to one interventions to reduce the transmission of sexually transmitted infections (STIs) including HIV, and to reduce the rate of under 18 conceptions, especially among vulnerable and at risk groups

Public Health Intervention Guidance no.3

Foreword

The Department of Health asked the National Institute for Health and Clinical Excellence (NICE or the Institute) to produce public health guidance on interventions to reduce the transmission of chlamydia (including screening) and other sexually transmitted infections (STIs) (including HIV) and to reduce the rate of under 18 conceptions, especially among vulnerable and at risk groups. It wanted guidance on the most effective ways that professionals both within and outside the NHS in England can achieve this.

This guidance focuses on one to one interventions to prevent STIs and under 18 conceptions. The Public Health Interventions Advisory Committee (PHIAC) has considered the reviews of the evidence and an economic appraisal.

This document sets out the preliminary recommendations developed by the Committee. It does not include all the sections that will form part of the final guidance. The Institute is now inviting comments from stakeholders (listed on the NICE website at: www.nice.org.uk).

Note that this document does not constitute the Institute's formal guidance on one to one interventions to prevent STIs and under 18

conceptions. The recommendations made in sections 1 and 5 are provisional and may change after consultation and fieldwork.

The process the Institute will follow after the consultation period (which includes fieldwork) is summarised below. For further details, see 'The public health guidance development process: an overview for stakeholders including public health practitioners, policy makers and the public' (this document is available on the Institute's website at: www.nice.org.uk).

- The Committee will meet again to consider the consultation comments, the fieldwork reports and the stakeholder evidence.
- After that meeting, the Committee will produce a second draft of the guidance.
- The draft guidance goes to the NICE Guidance Executive for final sign off.

The key dates are:
Closing date for comments: 9 November 2006.
Third Committee meeting: 5 December 2006.

Details of membership of PHIAC are given in appendix C and key supporting documents used in the preparation of this document are listed in appendix E.

Contents

1 Recommendations

The Public Health Interventions Advisory Committee (PHIAC) considered the evidence of effectiveness and cost effectiveness in drafting the recommendations. Note this document does not constitute the Institute's formal guidance on this intervention. The recommendations are preliminary and may change after consultation.

See the evidence reviews, supporting evidence statements and details on how the evidence was interpreted on the Institute's website at **www.nice.org.uk**

General issues

One to one interventions aim to address the personal factors that influence an individual's sexual behaviour. They form an integral component of many sexual health services. However, PHIAC recognises that this is one approach which needs to be considered within a broader framework for policy and practice for sexual health.

Other interventions to influence individual sexual behaviour include group- and peer-based approaches. These are not included in the scope of this guidance but may be considered at a later date by NICE. PHIAC also notes that a clinic-based service may not be the best way of reaching those most at risk of contracting STIs or those who are most likely to conceive under the age of 18.

Much of the evidence is US-based, but PHIAC considers that the evidence is sufficiently applicable to the UK context to inform the recommendations.

High risk groups

Recommendation 1

Health professionals in general practice, community health, voluntary sector and genito-urinary medicine (GUM) services should identify individuals at high risk of STIs, using the client's sexual history. They should provide or arrange sexual health counselling with an appropriately trained practitioner. Opportunities for risk assessment may arise during contraception, pregnancy

testing and abortion consultations, when offering an STI test, during routine care and when a new patient registers. High risk groups include anyone with – or being tested for – an STI/HIV, men who have unsafe sex with men, substance misusers, sexually active young people and anyone with multiple sex partners.

Recommendation 2

Health professionals trained in sexual health counselling – and who work in general practice, community health, voluntary sector or GUM services – should provide counselling for individuals at high risk of STIs. The counselling should comprise one to one structured sessions. The number of sessions will depend on individual need, but each should last 15-20 minutes.

Partner Notification

Recommendation 3

Health professionals in general practice, community health, the voluntary sector and GUM should provide help to patients with an STI to get their partners tested and treated. This support should be tailored to meet the individual's needs. They should provide both the patient and their partners with disease-specific information, including advice about retesting. Health professionals may need to refer patients to a specialist with responsibility for helping to contact, test and treat partners of people with an STI (partner notification). The specialist may be a sexual health adviser, general practitioner (GP) or practice nurse providing enhanced sexual health services, chlamydia screening coordinator or GUM clinician. Partner notification may be undertaken by the health professional or by the patient. It may include provision of a home sampling kit, prescription and/or medication for the partner.

Recommendation 4

Primary care trust (PCT) commissioners should ensure that sexual health services are in place to meet local needs. Services should include arrangements for the notification, testing, treatment and follow up of the partners of people who have an STI (partner notification). The responsibilities of both non-specialist (primary and community) and specialist (GP enhanced

services, chlamydia screening programme and GUM) sexual health services should be defined. Staff should be appropriately trained and there should be an audit and monitoring framework in place.

Vulnerable young people

Recommendation 5

GPs, nurses and other clinicians should, where appropriate, provide vulnerable young people aged 18 years and under with one to one sexual health advice. This should include a discussion – and the provision of information – about the prevention of STIs and contraception methods, including long-acting reversible contraception (LARC) (in line with NICE clinical guideline no. 30). It should also cover other reproductive issues and concerns. Young women should be advised how to get and use emergency contraception (EC). If necessary, they should be given advance EC. The consultation should take place in primary care, family planning, antenatal/postnatal services, GUM, drug and alcohol misuse and youth clinics, schools and outreach centres. Vulnerable young people may include those from disadvantaged backgrounds, those who are in – or leaving – care and those who have low educational attainment.

Recommendation 6

Midwives, health visitors and nurses who provide antenatal, postnatal and child development services should regularly visit vulnerable women, aged 18 or under, who are pregnant or who are already mothers. They should discuss – and provide information about – preventing sexually transmitted infections (STIs) and contraception methods (including long-acting reversible contraception (LARC) in line with NICE clinical guideline no. 30, and emergency contraception). They should provide health promotion advice (in line with NICE clinical guideline no. 37) and discuss the young women's opportunities for returning to education, training and employment. Where appropriate, they should refer them to the relevant agencies. Vulnerable young women may include those from disadvantaged backgrounds, those who are in – or leaving – care and those who have low educational attainment.

2 Public health need and practice

Sexually transmitted infections

Sexual health in the UK has deteriorated over the last 10 years, with large increases in many STIs. The incidence of chlamydia has increased by over 300% (from 32,288 in 1995 to 104,155 in 2004), gonorrhoea by over 200% (from 10,580 in 1995 to 22,335 in 2004) (HPA 2005). In addition, the incidence of HIV has increased more than threefold, from 2500 cases diagnosed in 1995 to just over 7000 in 2005 (HPA 2006a).

Overall, the number of STIs and other conditions diagnosed in GUM clinics in the UK increased by 3% between 2004–2005 (from 751,282 to 790,387) (HPA 2006b).

Some of this increase may be due to the greater availability of testing and increased awareness. It also reflects significant changes in people's knowledge, attitudes and patterns of sexual behaviour. The second 'National survey of sexual attitudes and lifestyles' (NATSAL 2000) provides the most recent data on sexual health behaviour in Britain. Since 1990, first intercourse is taking place at a younger age, a greater proportion of people have a number of multiple partners and a greater proportion of men report having had a same sex partner (Johnson et al. 2001).

Sexual behaviour may be influenced by a number of factors:

- low self-esteem
- lack of skills (for example, in using condoms)
- lack of negotiation skills (for example, to say 'no' to sex without condoms)
- lack of knowledge about the risks of different sexual behaviours
- availability of resources, such as condoms or sexual health services
- peer pressure
- attitudes (and prejudices) of society which may affect access to services.

(Ellis et al. 2003.)

Under 18 conceptions

England's under 18 and under 16 conception rates have fallen by 11.1% and 15.2% respectively since the start of the ‘Teenage pregnancy strategy’ in 1998. Rates are now at their lowest level for 20 years (TPU 2006). However, the UK still has the highest rate of teenage pregnancy in Western Europe. In 2004, there were 39,545 under 18 conceptions in England; 41% ended in a termination.

Inequalities

Sexual illness disproportionately affects those experiencing poverty and social exclusion. The highest burden is borne by men who have sex with men, some black and minority ethnic groups and young people. Individuals and groups who find it most difficult to access services include asylum seekers and refugees, sex workers and their clients, those who are homeless and young people in – or leaving – care.

For some young people, becoming a parent is a positive choice. However, teenage pregnancy is often associated with poor health and social outcomes for both the mother and child. Young mothers are more likely to suffer postnatal depression and less likely to complete their education. Children born to teenage parents are less likely to be breastfed, and more likely live in poverty and to become teenage parents themselves (Botting et al. 1998).

Young people from certain groups are particularly likely to become teenage parents:

- those from unskilled manual backgrounds are more than 10 times as likely to become teenage mothers as those from professional backgrounds (Kiernan 1995)
- those living in areas with high levels of social deprivation are more likely to conceive earlier, as well as less likely to opt for abortion compared with those living in more affluent areas (Botting et al. 1998)
- those young people in, or leaving care (Biehal 1995)
- those young women whose mother gave birth as a teenager (Ermisch and Pevalin 2003)

- those who have low educational attainment (Kiernan 1995)
- certain minority ethnic groups (Berthoud 2001).

The risk of STI infection or an unintended pregnancy is associated with:

- higher numbers of partners
- high rate of partner change
- unsafe sexual activity such as unprotected sex.

Sexual health targets

The government set out a number of sexual health targets in the public health white paper ‘Choosing health’ (DH 2004). These form part of a public service agreement (PSA) with the Department of Health and include:

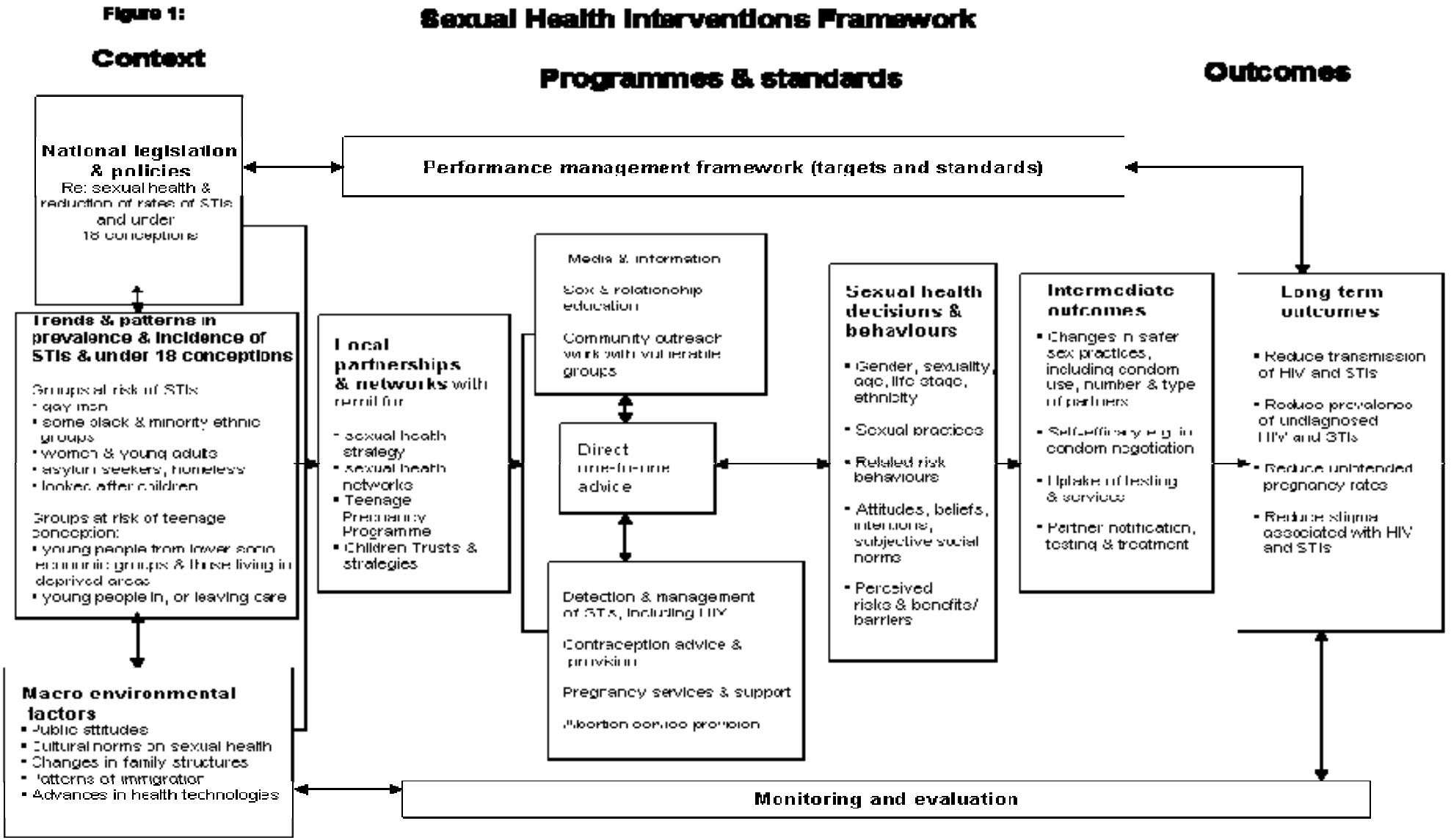
- a reduction in the under 18 conception rate by 50% by 2010, as part of a broader strategy to improve sexual health
- 100% of patients contacting GUM clinics to be offered an appointment within 48 hours by 2008
- a decrease in the rate of new diagnoses of gonorrhoea
- an increase in the percentage of people aged 15–24 accepting chlamydia screening by 2007.

Reducing the under 18 conception rate is a joint PSA for the Department of Health and the Department of Education and Skills (DfES 2004). It is also a national PSA for local government.

Practice

Figure 1 below links the factors that influence sexual behaviour and interventions designed to promote sexual health.

Figure 1:


Sexual Health Interventions Framework
Context
Programmes & standards
Outcomes
National legislation & policies
Re: sexual health & reduction of rates of STIs and under 18 conceptions
Performance management framework (targets and standards)
Trends & patterns in prevalence & incidence of STIs & under 18 conceptions
Groups at risk of STIs
• gay men
• some black & minority ethnic groups
• women & young adults
• asylum seekers, homeless
• looked after children
Groups at risk of teenage conception:
• young people from lower socio economic groups & those living in deprived areas
• young people in, or leaving care
Local partnerships & networks with remit for
• sexual health strategy
• sexual health networks
• Teenage Pregnancy Programme
• Children Trusts & strategies
Media & information
Sex & relationship education
Community outreach work with vulnerable groups
Direct one-to-one advice
Detection & management of STIs, including HIV
Contraception advice & provision
Pregnancy services & support
Abortion service provision
Sexual health decisions & behaviours
• Gender, sexuality, age, life stage, ethnicity
• Sexual practices
• Related risk behaviours
• Attitudes, beliefs, intentions, subjective social norms
• Perceived risks & benefits/ barriers
Intermediate outcomes
• Changes in safer sex practices, including condom use, number & type of partners
• Self-efficacy e.g. in condom negotiation
• Uptake of testing & services
• Partner notification, testing & treatment
Long term outcomes
• Reduce transmission of HIV and STIs
• Reduce prevalence of undiagnosed HIV and STIs
• Reduce unintended pregnancy rates
• Reduce stigma associated with HIV and STIs
Macro environmental factors
• Public attitudes
• Cultural norms on sexual health
• Changes in family structures
• Patterns of immigration
• Advances in health technologies
Monitoring and evaluation

One to one interventions will be integral to new sexual health services being developed. The expansion of STI testing services (including HIV), in particular, will provide an important opportunity for sexual health counselling in walk-in and open access centres, as well as in primary care. Increased home visits to vulnerable pregnant teenagers and teenage parents builds on the Sure Start Plus model.

The guidance is aimed at healthcare professionals working in the NHS who have a role and/or responsibility for sexual health. It will also be relevant to non-NHS professionals and others with sexual health responsibilities working in local authorities, education, communities, and the voluntary and private sectors.

3 Considerations

This section will be completed for the final guidance document. It will detail the factors considered by PHIAC in formulating its recommendations.

4 Implementation

The Healthcare Commission assesses the performance of NHS organisations in meeting core and developmental standards set by the DH in 'Standards for better health' issued in July 2004. The implementation of NICE public health guidance will help organisations meet the standards in the public health (seventh) domain, such as core standards C22 and C23 and developmental standard D13. In addition, it will help meet the health inequalities target as set out in 'The NHS in England: the operating framework for 2006/7' (DH 2006).

NICE has developed tools to help organisations implement this guidance (listed below). These will be available on our website (www.nice.org.uk/PHI003) in March 2007.

- Slides highlighting key messages for local discussion
- Costing tools:
  - costing report to estimate the national savings and costs associated with implementation
  - costing template to estimate the local costs and savings involved.

- Implementation advice on how to put the guidance into practice and national initiatives which support this locally.
- Audit criteria to monitor local practice.

5 Recommendations for research

PHIAC notes that current UK and US research being undertaken into the feasibility of 'patient delivered partner therapy' may inform future guidance in this area. PHIAC also considered that funding agencies should establish a programme to identify the most effective and cost effective one to one interventions for reducing sexually transmitted infections and unintended teenage pregnancies.

However, this does not mean these are the only research priorities in relation to sexual health as a whole.

The Committee recommended that the following research questions be addressed.

1. What are the key characteristics of an effective one to one counselling session to reduce STIs in different high risk groups?

2. What is the relative effectiveness of one to one interventions delivered by different health professionals and in different settings?

3. What is the relative effectiveness of one to one interventions to reduce STIs and unintended teenage pregnancies compared to group interventions?

4. What is the most effective way of identifying high risk groups to target using one to one interventions?

5. In the UK, what are the most effective methods of contacting, testing and treating partners of patients who have an STI, particularly in groups whose partners may be hard to contact? (Examples of such groups include men who have sex with men or anybody who has multiple partners and/or frequently changes partners.)

6. What are the most effective ways of communicating information about sexual health and STIs to young people and the wider public? In particular, how can such information effectively address the stigma and discrimination surrounding sexual health and STIs?

7. What utility scores should be applied to individuals with STIs and women who conceive under 18 to generate QUALYs for use in cost-effectiveness analysis?

6 Review

This section will be completed for the final guidance document.

7 Related guidance

Postnatal care: routine postnatal care of women and their babies. NICE clinical guideline no. 37 (2006). Available from www.nice..org.uk/CG037

Long-acting reversible contraception. NICE clinical guideline no. 30 (2005). Available from www.nice.org.uk/CG030

8 Acknowledgements

This guidance was developed by PHIAC supported by the NICE Project Team. For details of PHIAC membership see appendix C.

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NICE is grateful for the input of the Universities of Hertfordshire and Berne which carried out the reviews of the evidence of effectiveness. It is also grateful to staff at NERA Consultancy and the University of Birmingham. The former carried out the cost-effectiveness review, the latter produced the modelling report on chlamydia. The principal authors of the reviews of effectiveness were: Francis Bunn and Fiona Brooks (review 1) of the University of Hertfordshire; Nicola Low and Linda Nartey (review 2) of the University of Berne; and Sven Trelle and Aijing Shang (review 3), also from the University of Berne.

The economic appraisal was undertaken by David Lewis, Leela Barham and Nicholas Latimer. The modelling report was undertaken by Pelham Barton and Tracey Roberts.

NICE would also like to thank the stakeholders who commented on the scope, the evidence base and the draft recommendations, including those who submitted evidence.

9 References

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Kiernan K (1995) *Transition to parenthood: young mothers, young fathers – associated factors and later life experiences.* LSE Discussion paper WSP/113.

Teenage Pregnancy Unit, ‘Under 18 conception data for top tier local authorities LAD1 1998–2004’ [online]. Available from: www.dfes.gov.uk/teenagepregnancy/dsp_showDoc.cfm?FileName=ACF58FC%2Exls [accessed 8 August 2006].

Appendix A: recommendations for policy and practice and supporting evidence statements

This appendix sets out the recommendations and the associated evidence statements taken from three reviews of effectiveness.

- Review 1: ‘Contraceptive advice and provision for the prevention of under 18 conceptions and STIs: a rapid review’.
- Review 2: ‘Rapid review of the evidence for the effectiveness of screening for genital chlamydia infection in sexually active young women and men’.
- Review 3: ‘Rapid review of the evidence for the effectiveness of partner notification for sexually transmitted infections including HIV’.

Recommendations are followed by the evidence statement(s) that underpin them. For example: **(evidence statement 1.1)** indicates that the linked statement is numbered 1 in the review ‘Contraceptive advice and provision for the prevention of under 18 conceptions and STIs: a rapid review’, evidence statement 2.1 indicates that it is numbered 1 in the ‘Rapid review of the evidence for the effectiveness of screening for genital chlamydia infection in sexually active young women and men’. (Please note, only evidence statements that have been used to formulate the recommendations are included.)

The reviews are available on the NICE website (www.nice.org.uk/page.aspx?o=SexualHealthMain&c=publichealth#keydocs). Where a recommendation is not directly taken from the evidence statements, but is inferred from the evidence, this is indicated by IDE (inference derived from the evidence).

Recommendation 1

Health professionals in general practice, community health, voluntary sector and genito-urinary medicine (GUM) services should identify individuals at high risk of STIs, using the client's sexual history. They should provide or arrange

sexual health counselling with an appropriately trained practitioner. Opportunities for risk assessment may arise during contraception, pregnancy testing and abortion consultations, when offering an STI test, during routine care and when a new patient registers. High risk groups include anyone with – or being tested for – an STI/HIV, men who have unsafe sex with men, substance misusers, sexually active young people and anyone with multiple sex partners.

(Evidence statement 1.1, 1.2, 1.3, 1.4, 1.13, 2.20, 2.21, 2.26, 2.29, IDE)

Recommendation 2

Health professionals trained in sexual health counselling – and who work in general practice, community health, voluntary sector or GUM services – should provide counselling for individuals at high risk of STIs. The counselling should comprise one to one structured sessions. The number of sessions will depend on individual need, but each should last 15-20 minutes.

(Evidence statement 1.1, 1.2, 1.3, 1.4, 1.13, IDE)

Recommendation 3

Health professionals in general practice, community health, the voluntary sector and GUM should provide help to patients with an STI to get their partners tested and treated. This support should be tailored to meet the individual's needs. They should provide both the patient and their partners with disease-specific information, including advice about retesting. Health professionals may need to refer patients to a specialist with responsibility for helping to contact, test and treat partners of people with an STI (partner notification). The specialist may be a sexual health adviser, general practitioner (GP) or practice nurse providing enhanced sexual health services, chlamydia screening coordinator or GUM clinician. Partner notification may be undertaken by the health professional or by the patient. It may include provision of a home sampling kit, prescription and/or medication for the partner.

(Evidence statement 3.1, 3.2, 3.8, 3.16, IDE)

Recommendation 4

Primary care trust (PCT) commissioners should ensure that sexual health services are in place to meet local needs. Services should include arrangements for the notification, testing, treatment and follow up of the partners of people who have an STI (partner notification). The responsibilities of both non-specialist (primary and community) and specialist (GP enhanced services, chlamydia screening programme and GUM) sexual health services should be defined. Staff should be appropriately trained and there should be an audit and monitoring framework in place.

(Evidence statement 2.16 3.1, 3.2, 3.8, 3.16, IDE)

Vulnerable Young People

Recommendation 5

GPs, nurses and other clinicians should, where appropriate, provide vulnerable young people aged 18 years and under with one to one sexual health advice. This should include a discussion – and the provision of information – about the prevention of STIs and contraception methods, including long-acting reversible contraception (LARC) (in line with NICE clinical guideline no. 30). It should also cover other reproductive issues and concerns. Young women should be advised how to get and use emergency contraception (EC). If necessary, they should be given advance EC. The consultation should take place in primary care, family planning, antenatal/postnatal services, GUM, drug and alcohol misuse and youth clinics, schools and outreach centres. Vulnerable young people may include those from disadvantaged backgrounds, those who are in – or leaving – care and those who have low educational attainment.

(Evidence statement 1.13,1.16,1.18, 1.19, IDE)

Recommendation 6

Midwives, health visitors and nurses who provide antenatal, postnatal and child development services should regularly visit vulnerable women, aged 18 or under, who are pregnant or who are already mothers. They should discuss – and provide information about – preventing sexually transmitted infections (STIs) and contraception methods (including long-acting reversible

contraception (LARC) in line with NICE clinical guideline no. 30, and emergency contraception). They should provide health promotion advice (in line with NICE clinical guideline no. 37) and discuss the young women's opportunities for returning to education, training and employment. Where appropriate, they should refer them to the relevant agencies. Vulnerable young women may include those from disadvantaged backgrounds, those who are in – or leaving – care and those who have low educational attainment.

(Evidence statement 1.17, IDE)

Evidence statements

Evidence statement 1.1

In summary, the evidence on the effectiveness of one to one interventions for the prevention of STIs is mixed but, on balance, marginally supports the interventions. There is evidence from Project RESPECT a large (++) US study (Kamb 1998) that both a two session and a four session one to one counselling intervention can reduce STIs in the long and very long term in heterosexuals, and from one (+) study that STIs in men can be reduced in the long term after one 90 minute session (Kalichman). However, the effect appears to decrease over time, with one study finding a reduction in effect after six months (Kamb 1998).

RESPECT intervention model

This comprised brief or enhanced counselling sessions. The brief intervention consisted of two, 20-minute, client-focused interactive sessions with a counsellor. It involved negotiating an acceptable and achievable risk-reduction plan that focused on condom use. The enhanced counselling consisted of four interactive sessions with a counsellor, based on the theory of reasoned action. The sessions took place over a two week period. The first lasted 20 minutes, the remainder were 60-minutes long. They involved negotiating a long-term plan for behaviour change. The aim was to ensure condoms were consistently used. Both types of counselling helped changed the attitudes and self-efficacy (determining intention) of women who attended. Only the more

intensive counselling was effective for men.

Evidence statement 1.2

In addition EXPLORE, a large (++) US study of ten sessions one to one counselling for MSM, found a 15.7% reduction in HIV infection but this was not statistically significant (EXPLORE 2004). The other studies found no effect on STIs, but may have been underpowered for this outcome.

EXPLORE intervention model

The intervention consisted of 10 core counselling modules delivered at one to one counselling sessions, over a 4–6 month period. Typically, one module was delivered per session. After the initial 10 modules, maintenance sessions were delivered every 3 months. The intervention was designed to address the individual, interpersonal and other factors associated with risk-taking by some men who have sex with men. These factors include, the greater pleasure derived from risky sexual behaviour, negative mood states, communication difficulties, social norms that encourage misperceptions of risk and risk taking, use of alcohol or recreational drugs, and life events and environments that are catalysts for risk taking. The intervention was carried out by counsellors who had completed the required 40 hours of training specified by the intervention protocol.

Evidence statement 1.3

Interventions with adolescents appeared to be particularly effective. A subgroup analysis of Project RESPECT (Bolu 2004) found a significant reduction in sexually transmitted infections with both the four and two session interventions versus a didactic control. Although this was the only study to show a statistically significant difference, the general trend in this group of studies was towards a reduction in STIs.

Evidence statement 1.4

Twenty-five studies reported condom use, of which only eight showed a statistically significant increase in condom use in the intervention group compared to the control. However, overall there is weak evidence (that is, it is mixed or conflicting but on balance marginally supports) that one to one STI/HIV prevention interventions can increase short and long-term condom

use compared to control. Project RESPECT, a large good quality (++) US study found an increase in condom use in both the four and two session counselling intervention groups compared to a didactic control (Kamb 1998). However, several studies found the effect of an intervention appears to decrease or disappear over time. Greater uniformity is needed in the way in which condom use is measured in studies.

For details of the RESPECT intervention model see page 21.

Evidence statement 1.13

A subgroup analysis of Project RESPECT (Bolu 2004) found a significant reduction in sexually transmitted infections in adolescents with both the four and two session interventions versus a didactic control. The intervention was more effective with adolescents than with other age groups. Although this was the only study with adolescents to show a statistically significant difference, the general trend in this group of studies was towards a reduction in STIs.

Evidence Statement 1.16

Two (++) RCTs evaluated the provision of emergency contraception (Gold 2004, Harper 2005). One (Gold 2004) compared advance provision of EC with advice on how to obtain EC, and the other (Harper 2005) compared advance access and pharmacy access with a clinic access control. Neither found a statistically significant reduction in pregnancies compared to the control, both lacked statistical power to detect a difference in pregnancies.

Evidence Statement 1.17

Six studies evaluated interventions to support pregnant women or mothers. Although only two of the studies focused solely on adolescents (O'Sullivan 1992, Quinlivan 2003) all included at least 40% of adolescents and focused on disadvantaged, low-income women. There is good evidence that multi-session support and home visiting for disadvantaged low-income pregnant women or mothers can prevent repeat pregnancies with two (+) (Olds 2002, Olds 2004) and one (-) (O'Sullivan 1992) studies showing a significant reduction in repeat pregnancies in the intervention group compared to control.

In addition one (-) study (Olds 1997) found a reduction in repeat pregnancies in poor unmarried women, although not in the sample as a whole.

Evidence Statement 1.18

In relation to the prevention of pregnancy, two (-) studies evaluated contraception advice and support in a clinic-based setting (Shlay 2003, Winter 1991). Neither found a significant reduction in pregnancies but both showed a trend towards a reduction in the intervention group compared to control.

Evidence Statement 1.19

Seven studies reported contraception use. This was measured in various different ways, including oral contraception, EC and condom use. Four studies showed a statistically significant effect on contraception use. Two increased oral contraceptive use. These were a (++) RCT (Quinlivan 2003) and a (+) RCT (Danielson 1990) that found one to one interventions with teenagers can improve contraception use in the long term. Of the two (++) studies of advanced provision of EC, one (Harper 2005) found an increase in the use of EC at six month follow up and the other (Gold 2004) found a short term increase in EC use but this was no longer significant at six months. This study (Gold 2004) also reported an increase in condom use but no significant difference in use of the oral contraceptive pill (Gold 2004). In the other studies the general trend was towards an increase in contraception use although one (-) study found the effect on contraception use was no longer significant at 12 months (Winter 1991). Therefore, there is some evidence that one to one interventions with under 18s can increase contraception use.

Evidence Statement 2.20

There is evidence from two (+) controlled trials (one randomised, one non-randomised) that offering chlamydia testing in general practice increases the number of young women and men screened compared with usual care. This evidence applies to women and men under 30 years attending general practices.

Evidence Statement 2.21

There is evidence from two (+) randomised controlled trials (one large, one small) suggesting that changing systems of health service delivery can

increase the numbers of teenage women screened opportunistically, and the number of chlamydia cases detected. This evidence applies to sexually active young women under 20 years attending general paediatric or teen clinics.

Evidence Statement 2.26

Descriptive studies in general practice (two studies, one ++, one +) suggest that offering GPs incentives might increase acceptance rates by patients. There were too few studies to be able to say anything about the effects of incentives on effective screening rates.

Evidence Statement 2.29

Data from one (+) randomised controlled trial, one (++) descriptive study, and three (+) descriptive studies (one + contradictory study) show that less than half of women and men under 25 years attending general practice get screened for chlamydia because not all those who are eligible for screening are offered a test.

Evidence Statement 3.1

There is evidence from four large randomised controlled trials (two +; two –) that patient-delivered partner therapy plus additional information for partners reduces persistent or recurrent infections in women and men diagnosed with gonorrhoea or chlamydia by approximately 5% compared to patient referral (either minimal or supplemented by contact card).

Evidence Statement 3.2

There is evidence from one large randomised controlled trial (–) that patient referral supplemented by additional information about infection for index patients and partner(s) reduces persistent or recurrent infections in men diagnosed with gonorrhoea or chlamydia by approximately 5% when compared to minimal patient referral.

Evidence Statement 3.8

There is weak evidence from two randomised controlled trials (both –) that giving index patients diagnosed with chlamydia sampling kits for their partner(s) can increase the number of partners who get tested when compared to getting the partner(s) to visit their doctor for testing.

Evidence Statement 3.16

There is evidence from one randomised controlled trial (++) that patient referral for patients with chlamydia conducted in general practice is at least as effective in terms of partners who get treated when compared to referring patients to a specialist health service.

Appendix B: gaps in the evidence

This section will be completed for the final guidance document.

Appendix C: membership of the Public Health Interventions Advisory Committee

NICE has set up a standing committee, the Public Health Interventions Advisory Committee (PHIAC), which reviews the evidence and develops recommendations on public health interventions.

Membership of PHIAC is multidisciplinary, comprising public health practitioners, clinicians (both specialists and generalists), local authority employees, representatives of the public, patients and/or carers, academics and technical experts as follows.

Mrs Cheryll Adams Professional Officer for Research and Practice Development with the Community Practitioners' and Health Visitors' Association (CPHVA)
Professor Sue Atkinson Regional Director of Public Health for London. Health Adviser to Mayor and Greater London Authority
Professor Michael Bury Emeritus Professor of Sociology at the University of London and Honorary Professor of Sociology at the University of Kent
Professor Simon Capewell Chair of Clinical Epidemiology, University of Liverpool
Professor K K Cheng Professor of Epidemiology, University of Birmingham
Mr Philip Cutler Forums Support Manager, Bradford Alliance on Community Care
Professor Brian Ferguson Director of the Yorkshire and Humber Public Health Observatory
Dr Ruth Hall Director of Public Health for Avon, Gloucestershire and Wiltshire Strategic Health Authority
Ms Amanda Hoey Director, Consumer Health Consulting Limited
Mr Andrew Hopkin Senior Assistant Director for Derby City Council
Dr Ann Hoskins Director of Public Health for Cumbria and Lancashire Strategic Health Authority
Ms Muriel James Secretary for the Northampton Healthy Communities Collaborative and the King Edward Road Surgery Patient Participation Group

Professor David R Jones Professor of Medical Statistics in the Department of Health Sciences, University of Leicester

Dr Matt Kearney General Practitioner, Castlefields, Runcorn.
GP Public Health Practitioner, Knowsley

Ms Valerie King Designated Nurse for Looked After Children for Northampton PCT, Daventry and South Northants PCT and Northampton General Hospital. Public Health Skills Development Nurse for Northampton PCT

CHAIR Dr Catherine Law Reader in Children's Health, Institute of Child Health, University College, London

Ms Sharon McAteer Health Promotion Manager, Halton PCT

Professor Klim McPherson Visiting Professor of Public Health Epidemiology Department of Obstetrics and Gynaecology, University of Oxford

Professor Susan Michie, Professor of Health Psychology, BPS Centre for Outcomes Research & Effectiveness, University College, London

Ms Jane Putsey . Chair of Trustees of the Breastfeeding Network and Non-Executive Director of Cumbria and Lancashire Strategic Health Authority

Dr Mike Rayner Director of British Heart Foundation Health Promotion Research Group, Department of Public Health, University of Oxford

Mr Dale Robinson Chief Environmental Health Officer for South Cambridgeshire District Council

Professor Mark Sculpher Professor of Health Economics at the Centre for Economics (CHE), University of York

Dr David Sloan Director of Health Improvement & Public Health for City & Hackney Teaching PCT

Dr Michael Varnam Previously General Practitioner with the Community of Inner Nottingham. We would like to acknowledge the valuable contribution Dr Varnam made to this draft guidance. Sadly, he died in April 2006.

Dr Dagmar Zeuner Consultant in Public Health with Islington PCT

Expert Cooptees:

Dr Helen Ward Clinical Senior Lecturer, Division of Epidemiology, Public Health and Primary Care Imperial College, London

Dr Richard Ma General Practitioner, London

Ms Kate Quail Regional Teenage Pregnancy Co-ordinator, East Midlands

Dr Angela Robinson Consultant in Genito-Urinary Medicine, London.

Expert Testimony:

Mary Mcintosh Director, National Chlamydia Screening Programme

Ian Simms Scientific Adviser, National Chlamydia Screening Programme

Professor Catherine Peckham, National Screening Committee

Appendix D: summary of the methods used to develop this guidance

Introduction

The reports of the reviews and economic analysis include full details of the methods used to select the evidence (including search strategies), assess its quality and summarise it.

The minutes of the PHIAC meetings provide further detail about the Committee interpretation of the evidence and development of the recommendations.

All supporting documents are listed in appendix E and are available from the NICE website at: www.nice.org.uk/page.aspx?o=SexualHealthMain&c=publichealth#keydocs

The guidance development process

The stages of the guidance production process are outlined in the box below:

1. Draft scope
2. Stakeholder meeting
3. Stakeholder comments
4. Final scope and responses published on website
5. Reviews and cost-effectiveness modelling
6. Synopsis report of the evidence (executive summaries and evidence tables) circulated to stakeholders for comment
7. Comments and additional material submitted by stakeholders
8. Review of additional material submitted by stakeholders[1]
9. Synopsis, full reviews, supplementary reviews and economic modelling submitted to PHIAC
10. PHIAC produces draft recommendations
11. Draft recommendations published for comment by stakeholders and for field testing
12. Responses to comments published
13. PHIAC amends recommendations
14. Final guidance published on website

Key questions

The key questions were established as part of the scope. They formed the starting point for the reviews of evidence and facilitated the development of recommendations by PHIAC. The overarching question was: How can one to one interventions contribute to the reduction of STIs (including HIV) and the reduction of the rate of under 18 conceptions?

1. What is the aim/objective of the intervention? What is it trying to change?

2. What outcome measures are used to assess effectiveness? How valid and appropriate are they?

3. What is the content of the intervention? Does it influence effectiveness?

[1] Submitted material is screened against inclusion criteria used in the reviews.

4. Does the way it is carried out (the type/mode of communication, for example) influence effectiveness?

5. Does effectiveness depend on the job title/position or other factors such as age, gender, sexuality, ethnicity, of the deliverer (leader)? What are the significant features of an effective deliverer (leader)?

6. Does the site/setting of delivery influence effectiveness?

7. Does the intensity, length or frequency influence effectiveness/duration of effect?

8. Does effectiveness vary according to age, gender, sexuality, socio-economic status or ethnicity?

9. What evidence is there on cost effectiveness?

10. What are the barriers to implementing effective interventions?

These questions were refined further in relation to the topic of each review (see reviews for further details).

Reviewing the evidence of effectiveness

Three reviews of effectiveness were conducted.

Review 1 ‘Contraceptive advice and provision for the prevention of under 18 conceptions and STIs: a rapid review’.

Review 2 ‘Review of evidence for the effectiveness of screening for genital chlamydial infection in sexually active young women and men’.

Review 3 ‘Review of evidence for the effectiveness of partner notification for sexually transmitted infections including HIV’.

Identifying the evidence

The following core databases were searched for randomised controlled trials, controlled before/after studies and qualitative studies (process only): Medline, Embase, Psychinfo, DARE and Sigle from 1990–2005. Reference lists from included studies were hand searched.

Further details of databases, search terms and strategies are included in the review reports.

Selection criteria

Inclusion and exclusion criteria for each review varied and details can be found at:
www.nice.org.uk/page.aspx?o=SexualHealthMain&c=publichealth#keydocs

However, in general:

- review 1 included one to one interventions which offered information, advice, condoms, counselling, cognitive behavioural therapy and/or activities that increase self confidence, self-esteem and skill development
- review 2 considered any activity described as screening or where testing for Chlamydia was offered to asymptomatic sexually active adults
- review 3 considered any intervention described as partner notification or contact tracing, or where partners were located and informed that they have been exposed to an infection
- studies in both NHS and non-health settings were considered. Details of the studies that were excluded can be found in the reviews.

Quality appraisal

Included papers were assessed for methodological rigour and quality using the NICE methodology checklist, as set out in the NICE technical manual 'Public health guidance: development process and methods' (2006). Each study was described by study type (categorised as types 1–4) and graded (++, +, -) to reflect the risk of potential bias arising from its design and execution:

Study type

1 Meta-analyses, systematic reviews of RCTs or RCTs (including cluster RCTs).

2 Systematic reviews of, or individual, non-randomised controlled trials, case-control studies, cohort studies, controlled before-and-after (CBA) studies, interrupted time series (ITS) studies, correlation studies.

3 Non-analytical studies (for example, case reports, case series).

4 Expert opinion, formal consensus.

Study quality

++ All or most of the criteria have been fulfilled. Where they have not been fulfilled the conclusions are thought very unlikely to alter.

+ Some criteria have been fulfilled. Those criteria that have not been fulfilled or not adequately described are thought unlikely to alter the conclusions.

- Few or no criteria fulfilled. The conclusions of the study are thought likely or very likely to alter.

Study type and quality were described together, for example, as (1++) or (2-). The studies were also assessed for their applicability to the UK.

Summarising the evidence and making evidence statements

Data from the reviews was summarised in evidence tables (see full reviews). Outcomes of interest included:

- review 1: reductions in under 18 teenage conceptions and STIs including HIV (primary outcomes), and increased condom use, improved sexual health knowledge, and a reduction in the number of sexual partners and general sexual risk taking (intermediate outcomes)
- review 2: reduction in the prevalence and incidence of chlamydia and female reproductive tract morbidity
- review 3: reduction in the incidence and prevalence of STI (patient and index patient), increase in number of partners contacted, tested and treated.

The findings from the review were synthesised and used as the basis for a number of evidence statements relating to each key question. The evidence statements reflect the strength (quantity, type and quality) of evidence and its applicability to the populations and settings in the scope.

Economic appraisal

The economic appraisal consisted of a review of economic evaluations and a cost-effectiveness analysis.

Review of economic evaluations

A systematic search was carried out on five databases from January 1990 to December 2005: Econlit, NHS HEED, NEED, DARE. The results of these searches were supplemented by results from the parallel effectiveness reviews and additional papers identified by NICE. The main inclusion criteria were:

- studies focused on one to one interventions
- studies set in countries in Europe, US, Canada and Australia
- studies set in prison, army, primary care and secondary care settings.

Included studies were assessed for quality using a checklist based on the criteria developed by Drummond et al. (1997). Studies were then given a score (++, +, -) to reflect the risk of potential bias arising from its design and execution. The evidence tables for the cost-effectiveness review are included in the review (see appendix E).

Cost-effectiveness analysis

Economic models were constructed to incorporate data from the reviews of effectiveness and cost effectiveness, using NICE methodologies. The results are reported in 'PHIAC 6.7 economic modelling report' (University of Biirmingham) and 'PHIAC 6.10 economic modelling report' (NERA consultancy). This is available on the NICE website at: www.nice.org.uk/page.aspx?o=SexualHealthMain&c=publichealth#keydocs

Fieldwork

This section will be completed in the final guidance document.

How PHIAC formulated the recommendations

At its meeting in May 2006 and September 2006 PHIAC considered the evidence of effectiveness and cost effectiveness and comments from stakeholders to determine:

- whether there was sufficient evidence (in terms of quantity, quality and applicability) to form a judgement
- whether, on balance, the evidence demonstrates that the intervention is effective or ineffective, or whether it is equivocal
- where there is an effect, the typical size of effect.

PHIAC developed draft recommendations through informal consensus, based on the following criteria.

- Strength (quality and quantity) of evidence of effectiveness and its applicability to the populations/settings referred to in the scope.
- Effect size and potential impact on population health and/or reducing inequalities in health.
- Cost effectiveness (for the NHS and other public sector organisations).
- Balance of risks and benefits.
- Ease of implementation and the anticipated extent of change in practice that would be required.

Where possible, recommendations were linked to an evidence statement(s) – see appendix A for details. Where a recommendation was inferred from the evidence, this was indicated by the reference ‘IDE’ (inference derived from the evidence).

Appendix E: supporting documents

Supporting documents are available from the NICE website (www.nice.org.uk/PHI003). These include the following.

- Review of effectiveness
- Economic analysis: review and modelling reports.
- 'Methods for development of NICE public health guidance' (NICE 2006)
- 'The public health guidance development process: An overview for stakeholders including public health practitioners, policy makers and the public' (NICE 2006).
- A quick reference guide (QRG) for professionals whose remit includes public health and for interested members of the public. This is also available from the NHS Response Line (0870 1555 455 – quote reference number Nxxxx).